

ABSTRACT OF THE DISCLOSURE

A pointed shape may be present on the top end of the capacitor bottom (lower) electrode of a cylindrical capacitor. To cover this pointed end, a two-layer dielectric film of a capacitor dielectric film and another capacitor dielectric film is formed. As a result, while the capacitor bottom electrode has a pointed shape on its top end, the dielectric film covering the portion having a pointed shape has a greater thickness than the dielectric film covering the other parts of the vertical portion. Thus, even if the portion with a pointed shape on the capacitor bottom electrode has a concentration of electric field, the dielectric film exhibits a sufficient insulation performance to prevent leakage current. In this way, a semiconductor device is provided with an improved property of a capacitor dielectric film by the reduction of the risk of generating a leakage current in the capacitor dielectric film.